

REMARKS/ARGUMENTS

Claims 1-2, 4-7, and 9-26 are pending in the application. Applicant, by this paper, cancels claims 3 and 8, amends claims 1, 4, 5-7, 9-12, 14, and 17-21, and adds new claims 22-26. Applicant respectively requests reconsideration and allowance of all pending claims in light of the amendments.

Discussion of Objections to the Claims

The Examiner objected to claims 1-8 and 17-21 for a variety of informalities. In particular, the Examiner objected to claim 1 for lacking the term “sliced” before “chip” at line 7. Claim 4 is objected to for including the plural “estimates” when the independent claim from which it depends recites the singular “estimate.” Claim 17 is objected to for the use of the term “can be.” The Examiner suggests the correct term should be “is.”

Applicant amends the claims to overcome the objections. In particular, Applicant amends claim 1 to include the term “sliced” before “chip.” Applicant amends claim 4 to make explicit the plurality of estimates. Claim 17 is amended in the manner suggested by the Examiner. The objections to the dependent claims are believed to be overcome based on the amendments to the independent claims.

Applicant respectfully requests withdrawal of the objections to the claims in light of the amendments.

Discussion of Rejections Under 35 U.S.C. §112

Claims 1-8, 10, and 18-21 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention.

Applicant amends the claims to overcome the rejections. In particular, Applicant amends claims 1, 4, and 18 to remove the reference to the term “chip slicer.”

Applicant cancels claim 3 without prejudice, rendering moot the rejection to the claim.

Applicant amends claim 5 to provide antecedent basis for the term “feedback filter.”

Applicant amends claim 18 to remove the term “chip slicer.” Thus, the use of the term “a chip slicer” in claim 19 is no longer indefinite.

Applicant requests reconsideration and withdrawal of the rejections under 35 U.S.C. §112 in light of the amendments.

Discussion of Rejections Under 35 U.S.C. §102

Claims 1-14 and 16-21 were rejected under 35 U.S.C. §102(b) as allegedly anticipated by U.S. Patent No. 6,233,273 to Webster et al. (hereinafter Webster).

In order for a claim to be anticipated by a reference, the single prior art reference must describe, either expressly or inherently, each and every element as set forth in the claim. The Examiner contends that Webster sets forth each and every element of the rejected claims.

Claim 1 recites a method for improved digital communications. The method includes “deriving a more accurate estimate for the sliced chip based on a correlation among the chips in the code word.” This claimed feature is not described in Webster.

The Examiner contends that Webster describes the claimed feature in the coherent matched filter 33 illustrated, presumably, in FIGs. 6 and 10. Applicant respectfully disagrees.

The coherent matched filter 33 does not operate on a sliced chip, since Webster describes the chip slicer as part of the chip DFE 36 that operates on the output of the channel matched filter 33. Additionally, Webster fails to describe any element that determines an estimate of a sliced chip based on a correlation among chips in a codeword.

Applicant’s Specification describes an example of a complementary code keying (CCK) codeword, in which particular chips in the code word are correlated in a predetermined manner. *See, Specification*, at page 6, paragraphs [29] through [33]. The chip slicer can use the knowledge of the correlation among the chips of a code word to improve the identification of a chip slice. *Id.*, at paragraph [27] and [34].

In contrast, Webster fails to describe any apparatus that operates to correlate a sliced chip with any other chips from those among a code word. Therefore, Webster fails to describe at least one claimed feature. Applicant respectfully requests reconsideration and allowance of claim 1.

Claims 9 and 14 include the feature of “the chip slicer configured to determine an estimate of an identification of the chip based in part on a correlation to one or more chips in the code word.”

Claim 18 includes the feature of “means for deriving a more accurate estimate for the sliced chip based on a correlation among the chips in a code word.”

Therefore, claims 9, 14, and 18 are believed to be allowable at least for the reasons provided above in relation to claim 1. Applicant respectfully requests reconsideration and allowance of claims 9, 14, and 19.

Claims 2, 4-7, 10-13, 15-17, and 19-21 depend, either directly or indirectly, from one of independent claims 1, 9, 14, or 18 and are believed to be allowable at least for the reason that they depend from an allowable base claim.

Discussion of New Claims

Applicant adds new claims 22-26. Support for the new claims can be found throughout Applicant’s Specification, as filed. No new matter is added in the new claims.

In particular, support for claim 22 can be found at the description of Figs. 2 and 4, at paragraphs [25]-[39] and [40]-[48]. Support for claim 23 can be found, for example, at paragraph [26]. Support for claim 24 can be found, for example, at paragraph [42].

Support for claim 25 can be found, for example, at Fig. 4 and the associated description at paragraphs [40]-[48]. Support for claim 26 can be found, for example, at paragraph [42].

CONCLUSION

In view of the foregoing, it is respectfully submitted that the application and all of the claims are in condition for allowance. Applicant respectfully requests further examination, reconsideration, and allowance of the claims.

If there are any fees due in connection with the filing of this response, please charge such fees to our Deposit Account No. 17-0026. If a fee is required for an extension of time under 37 C.F.R. 1.136 not accounted for, such an extension is requested and the fee should also be charged to our Deposit Account. Applicants therefore respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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